

What is claimed is:

1. An image reading apparatus for reading an original, comprising:

a casing,

5 a scanning unit disposed in the casing and movable in a sub-scanning direction for reading the original,

a supporting member attached to the casing for supporting the scanning unit at one side thereof in a main scanning direction and guiding the scanning unit in the sub-scanning
10 direction,

a driving source for moving the scanning unit in the sub-scanning direction,

a drive transmitting unit for transmitting a drive force of the driving source to the scanning unit, and

15 first and second reinforcing plates attached to the casing along the sub-scanning direction for reinforcing the casing, said first reinforcing plate having a guide unit for supporting the scanning unit at the other side thereof in the main scanning direction and for guiding the scanning unit in the sub-scanning
20 direction, said driving source and the drive transmitting unit being fixed to the second reinforcing plate.

2. An image reading apparatus according to claim 1, wherein said drive transmitting unit engages the scanning unit, and includes
25 an endless belt for transmitting the drive force of the driving source to the scanning unit, a pair of pulleys for supporting the endless belt, and an adjusting unit for adjusting a distance between the pair of the pulleys.

3. An image reading apparatus according to claim 1, wherein said casing is made of a resin material, and said first and second reinforcing plates are made of a metallic material.

5 4. An image reading apparatus according to claim 1, wherein said first and second reinforcing plates are disposed on an inner bottom surface of the casing.

10 5. An image reading apparatus according to claim 1, wherein said casing has first and second sidewalls spaced apart in the sub-scanning direction, said supporting member having a rod-shape and being disposed adjacent to the second reinforcing plate along the sub-scanning direction, said supporting member having end portions fixed to the first and second sidewalls.

15 6. An image reading apparatus according to claim 1, further comprising a fan attached to the second reinforcing plate for cooling the casing and a light source driving unit attached to the second reinforcing plate for supplying power to a light
20 source disposed in the scanning unit for irradiating the original.

25 7. An image reading apparatus according to claim 6, wherein said fan and the light source driving unit are attached to the second reinforcing plate outside an area where the scanning unit moves.

8. An image reading apparatus according to claim 7, wherein said fan is attached to the second reinforcing plate at one side thereof in the sub-scanning direction, said driving source being
30 attached to the second reinforcing plate at the other side

thereof in the sub-scanning direction, said light source driving unit being disposed between the fan and the driving source so that the driving source, the fan and the light source driving unit are aligned along the sub-scanning direction.

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9. An image reading apparatus according to claim 1, wherein said first reinforcing plate includes a slide surface having two ends and extending along the sub-scanning direction for guiding the scanning unit, said slide surface having a curved surface curved
10 relative to the slide surface on at least one of the two ends.

10. An image reading apparatus according to claim 1, wherein said second reinforcing plate has a bottom surface extending along an inner bottom surface of the casing and a curved surface
15 curved relative to the bottom surface.

11. An image reading apparatus according to claim 2, wherein said second reinforcing plate includes a support part having a U-shape section and extending along the sub-scanning direction
20 for supporting at least one of the pair of the pulleys.

12. An image reading unit for reading an original, comprising:
a light source for irradiating the original,
a frame for supporting the light source, said frame having
25 a pair of sidewalls spaced apart and opposed to each other in a longitudinal direction of the light source,
a reflecting unit disposed along the longitudinal direction of the light source for reflecting the light reflected from the original,

an image forming unit disposed adjacent to the reflecting unit for forming an image of the light reflected from the reflecting unit,

5 a photoelectric converting unit disposed adjacent to the image forming unit for converting the light of the image formed by the image forming unit into an electric signal,

a pair of support plates disposed outside the pair of the sidewalls of the frame for supporting the reflecting unit, and

10 a fixing unit for fixing end portions of the reflecting unit in a longitudinal direction thereof to the pair of the support plates.

13. An image reading unit according to claim 12, wherein said frame is made of a resin material and said support plates are
15 made of a metallic material.

14. An image reading unit according to claim 12, wherein said pair of the sidewalls of the frame includes openings for receiving the reflecting unit.
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15. An image reading unit according to claim 14, wherein said pair of the support plates supports the reflecting unit inside the openings.

25 16. An image reading unit according to claim 12, wherein one of said pair of the support plates includes at least a pair of protrusions abutting against the reflecting unit, and the other of the pair of the support plates includes at least one protrusion abutting against the reflecting unit.

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17. An image reading unit according to claim 12, wherein said pair of the support plates is respectively fixed to the pair of the sidewalls of the frame through protrusions protruding from outer surfaces of the pair of the sidewalls of the frame so that gaps corresponding to a height of the protrusions are formed between the support plates and the sidewalls.

18. An image reading unit according to claim 12, wherein said reflecting unit includes a final reflection mirror disposed adjacent to the light source for guiding the light reflected from the original to the image forming unit, said fixing unit fixing the final reflecting mirror to the pair of the support plates and being made of a resin.

19. An image reading apparatus comprising the image reading unit according to claim 12, a casing for accommodating the image reading unit therein, and a fan disposed in the casing for cooling the casing.

20. An image reading apparatus according to claim 19, further comprising an original transporting unit for transporting the original to a predetermined reading position, said image reading unit being arranged at the predetermined reading position for reading the original transported by the original transporting unit, said fan being arranged at a position where the fan supplies air to the support plates of the image reading unit.